



Versions Comparison

NICE 8.9 vs.

NICE Interaction Management Release 4.1



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Introduction

NICE's solutions for the contact center and enterprise market have significantly evolved over the years, staying in the forefront of technology and enhanced on a regular basis in an effort to meet customers' needs.

This document provides an at-a-glance view of the major enhancements that have been made to NICE solutions over time, from previous NICE 8.9 (now in Sunset process) up to the current NICE Interaction Management R4.1. For full details of the features listed here, please review the relevant 'What's New' document or User/Technical documentation.

About NICE Systems

NICE Systems (NASDAQ: NICE) is the worldwide leader of intent-based solutions that capture and analyze interactions and transactions, realize intent, and extract and leverage insights to deliver impact in real time. Driven by cross-channel and multi-sensor analytics, NICE solutions enable organizations to improve business performance, increase operational efficiency, prevent financial crime, ensure compliance, and enhance safety and security. NICE serves over 25,000 organizations in the enterprise and security sectors, representing a variety of sizes and industries in more than 150 countries, and including over 80 of the Fortune 100 companies. More information is available at <http://www.nice.com>.



Note: The sign ● represents a “complete capability”, the sign ◐ represents a “partial capability”

NICE Business Solutions

Functionality	8.9	R4.1
Handle Time Optimization		
Pre-defined ATT (Avg. Talk Time) categories, lexicons, alerts, reports and dashboard views		●
Automatic root cause analysis for calls’ length-related issues		●
Applications usage analysis – calculates and reports handle time for agent applications (e.g. CRM, billing and knowledge bases)		●
Call part analysis – identifies discrete parts of calls and calculates the AHT for each part, to gain insight into which parts take too long		●
Real-time agent guidance (pointing agent to the next best action)		●
Agent desktop automation (e.g. automatic form filling, automating call wrap-up)		●
Real-time speech analytics, ability take immediate action by providing agents with context-based real-time guidance		●
Improved, more accurate method for calculating agent wrap-up time, based on retrieving agents’ status and activity parameters from the CTI		●
Recording agnostic: Business solution available on top of different recording systems of different versions, including non-NICE recording		●
Collections Effectiveness		
Pre-defined Collection categories, lexicons, alerts, reports and dashboard views		●
Automatic identification of collections compliance issues		●
Automatic measurement of promise kept rate and payment rate		●
Automatic root cause analysis of broken payment promises		●
Real-time agent guidance based on analysis of past collection interactions (e.g. objection handling best practices guidance)		●
Real-time process and script adherence		●
Agent desktop automation (e.g. immediate consolidation of customer data from multiple applications to one screen)		●
Recording agnostic: Business solution available on top of different recording systems of different versions, including non-NICE recording		●
First Contact Resolution		
Pre-defined FCR categories, lexicons, alerts, reports and dashboard views		●
Automatic identification of repeat calls		●
Automatic identification of the original call		●
Automatic root cause analysis of FCR issues		●
First interaction analysis – tracks and analyses the initial interaction		●
Identification of the customer interaction chain (i.e. multiple interactions from the same customer within a specified time frame)		●
Real-time agent guidance based on insights from cross-channel interaction analysis		●
Agent desktop automation (e.g. one-click access to the relevant knowledge base pages, consolidation of relevant customer data)		●
Real-time speech analytics, ability to take immediate action by providing agents with context-based real-time guidance		●
Recording agnostic: Business solution available on top of different recording systems of different versions, including non-NICE recording		●

Versions comparison: From NICE 8.9 to NICE Interaction Management R4.1



Functionality	8.9	R4.1
Customer Satisfaction		
Pre-defined CSAT categories, lexicons, alerts, reports and dashboard views		●
CSAT measurement across channels (phone, email, chat)		●
Identification of interactions with low satisfaction rates		●
Identification of customer escalation requests		●
Automatic root cause analysis of CSAT issues		●
Integration with NICE Customer Feedback		●
Real-time agent guidance based on satisfaction levels (e.g. how to address dissatisfaction)		●
Agent desktop automation (e.g. consolidation of relevant customer data and past interactions, one-click access to relevant knowledge base)		●
Dedicated Net Promoter Score (NPS) KPI		●
Customer Dissatisfaction Indicator Report		●
Identification of the customer interaction chain (i.e. multiple interactions from the same customer within a specified time frame)		●
Real-time speech analytics, ability to take real-time action to proactively improve customer satisfaction, integrated with real-time agent guidance		●
Recording agnostic: Business solution available on top of different recording systems of different versions, including non-NICE recording		●
Churn Reduction		
Pre-defined Customer Churn categories, lexicons, alerts, reports, dashboard views		●
Real-time identification of customers at risk		●
Automatic root cause analysis of dissatisfaction issues		●
Integration with transactional churn models		●
Dedicated churn-related KPIs (e.g. cancellation requests, service issues, competition mentions)		●
Risk of churn indicators report – presents overall churn risk and drill down to indicators per customer		●
Real-time agent guidance (e.g. identifying churn signals and guiding through risk mitigation)		●
Agent desktop automation (e.g. consolidation of relevant customer data and past interactions)		●
Real-time offer scoring – calculates the most appropriate save offer for the customer during the interaction		●
Real-time speech analytics, ability to intervene in churn-risk calls in real time, integrated with real-time agent guidance		●
Recording agnostic: Business solution available on top of different recording systems of different versions, including non-NICE recording		●
Sales Effectiveness		
Pre-defined Sales-related categories, lexicons, alerts, reports, dashboard views		●
Identification of missed sales opportunities		●
Measurement of sales conversion rates		●
Measurement of objection handling – how agents deal with objections to specific offers/products		●
Real-time agent guidance (e.g. sales script, process guidance, objection handling guidance)		●
Real-time offer scoring – calculates the most appropriate offer for the customer during the interaction		●

Agent desktop automation (e.g. one-click knowledge access, automating sale closing steps)		●
Real-time speech analytics, ability to impact sales activities in real time, integrated with real-time agent guidance		●
Recording agnostic: Business solution available on top of different recording systems of different versions, including non-NICE recording		●

Interaction Analytics Platform

Functionality	8.9	R4.1
Multi-Dimensional Analytics including analytics of Speech, Call Flow, Customer Feedback, Screen Content, business data and more		●
Stereo recording (speaker separation)		●
Emotion Detection		●
Talk-Over Analysis		●
100% calls analysis		●
Advanced Call Flow Analysis (transfers, holds etc)		●
Automatic Interaction Classification & Scoring		●
Interaction Visualization		●
Screen Content Analysis (see details in Desktop Analytics section)		●
Integrated Analytic reports in the suite		●
Multi-speech engines (word/phrase spotting, phonetic search, transcription)		●
Ad-hoc word search capability (using phonetic indexing)		●
Text Mining		●
Audio analysis for compliance investigation (compliance suite only)		●
Audio analysis search (position from start, from end, certainty, call side, distance from word or phrase)		●
Support for extension side configuration		●
Support for summed audio configuration (word spotting)		●
Speech analytics of VoIP traffic (using stereo recording of VoIP)		●
Analytics engines can support multiple languages to reside on the same system		●
Enhanced Word Lexicon options – spell check, sort options, excel import		●
PCI compliance – ability to exclude credit card numbers from transcription process		●
Language support for phonetics and speech-to-text engines: <ul style="list-style-type: none"> - English (US), English (UK) - English (Australia), English (South Africa), Spanish (Mexico), Spanish (Spain), Portuguese (Brazil), French, Hebrew, German 		● ●
Enhanced sentiment analysis – detect negative sentiment on customer, agent or both sides		●
System localization language support: French, Spanish, Japanese, Simplified Chinese, German, Russian, Portuguese, Korean		●
Software-based Speaker Separation (i.e. separating agent and customer channels on a single channel recording)		●



Real-time speech analytics		●
Recording agnostic: Interaction Analytics available on top of different recording systems of different versions, including non-NICE recording		●
Cross-Channel Analytics		
Ability to analyze interactions across various communication channels		●
Email analytics		●
Chat analytics		●

Interaction Analytics Applications

Functionality	8.9	R4.1
Interaction Categorization (Insight Manager)		
Automatic call categorization		●
Analysis of call volume trends and deviations per category		●
Alerts on trends and events		●
Extended categorization filters: business data, audio analysis, emotion		●
Enhanced category score with multi-dimensional information (score presented in the Business Analyzer)		●
Category history (allow to trace and analyze the category along the refinement steps)		●
Duplicate category (copy of an existing category)		●
Automatic word certainty suggested within the category definition		●
Add words to the lexicon manager directly from the category wizard		●
Category transcription (send a 'completed' category for transcription directly from Insight Manager)		●
Enhanced Category View – facilitated category definition and analysis		●
Category 'inbox' – indication of the last 5 notifications that were sent from a specific category		●
Category definition roll-back – restore one of the previous category definition states		●
Category correlation graph – illustrates the link between different categories (common interactions)		●
Category summary tab – presents the entire set of category definition		●
Category hierarchy – ability to create sub-categories for each parent category		●
Alerts - integrations to Oracle and Siebel CRM OnDemand – a category event can open a ticket in the CRM		●
Ability to transform a monitoring task into a discovery task		●
Ability to analyze archived call only (to increase system performance)		●
Ability to present the results only for the last x number of days		●
Enhanced keyword filtering – ability to perform stem searches (e.g. filter the words 'cancel', 'cancellation', canceling' to the same group)		●
Categorization of cross-channel interactions		●
Root Cause Analysis (ClearSight)		
Automatic root-cause analysis		●
Topic trend analysis view - trend of the root causes (topics) vs. the category call volume trend		●
Text mining analysis - filter topics according to their linguistic meaning (action phrases vs. entities/names)		●

Functionality	8.9	R4.1
Topics Unification - merge of 2 related topics		●
Save/Print visual components content (save as CSV files or as gif/jpeg image)		●
Visual Context Explorer (link analysis) - shows the statistically significant keywords that relate to a topic		●
Analysis of results according to specific attributes (e.g. Platinum customers); data extracted from CRM integrations or Screen content		●
Categories trend analysis view - display of category trend over time and zoom-in on specific periods		●
Add words to the lexicon manager directly from the root-cause topics module		●
Ability to create an Insight Manager category directly from the root-cause topics list (i.e. turn a list of words/phrases into a new category)		●
Ability to include business data in ClearSight analysis (e.g. add CRM-based customer retention scores)		●
Topics correlation graph – illustrates the link between different topics (common interactions)		●
Root Cause Topics – ability to look for topics (keywords and phrases) that do not appear in the list of top results		●
Ability to define a custom graph (define X and Y axis)		●
Handle time graph - handle time per agent per each selected category		●
Drill down from ClearSight graphs to the related interactions		●
Chat Handle-Time Distribution graph – # of chats within each chat duration range		●
Chat Maximum Response graph – # of chats with max. response time within a range		●
Chat Average Response Time – # of chats with average response time within a range		●
Desktop Analytics		
Ability to trigger recording (voice, screen or both) based on screen events (open application, mouse click, field value change and more)	●	●
Application interoperability with virtually any homegrown or 3 rd party application	●	●
Business Driven recording without the complexity of API integration	●	●
Ability to Tag recording with the Name/Type of event for business intelligence	●	●
Wizard-driven administration of triggers and events	●	●
Central server architecture (all events logged in Desktop Analytics DB)		●
Desktop Analytics admin is integrated into the Web-based System Admin		●
Ability to query by multiple screen events criteria in query application		●
Extract (“scrap”) business data from the agent screen		●
Screen events appear in playback (“visual cues”)		●
Ability to create groups of events		●
Ability to assign multiple triggers to a single event		●
Full integration with the user’s privileges and security mechanism		●
Out-of-the-box report templates for Desktop Analytics		●
Advanced screen events search (position from start, from end, event count, group count)		●
Operate over thin client Citrix environment		●
Capture information from HTML grids		●
Time Interval between Trigger and Data Extraction (to allow		●

information capture from an application just after it is populated)		
SNMP support (traps for service failure, master site access failure, client identification error)		●
Client plug-in and Trigger plug-in		●
Support for Java applications of version 1.4 and above		●
New Desktop Analytics component –		●
Multiple new connectors to external systems and applications		●
Complex rule definition for data extraction and triggers		●
Enhanced scalability		●
Enhanced Privacy Control capabilities to comply with Payment Card Industry Data Security Standard (PCI DSS)		●

Quality Management

Functionality	8.9	R4.1
Quality Optimization		
Quality Optimization solution – automated business-driven QM		●
My Universe Quality Optimization components with gauges, counters, graphs		●
Advanced QM-driven root cause analysis		●
24 pre-defined KPIs (metrics for evaluations, coaching, calibration, service level, customer feedback, more)		●
Slice & dice capabilities – compare metrics to peers and groups		●
Ability to define thresholds and targets for each metric		●
Ability to analyze performance by trends, histograms, and ranking tables		●
Ability to define call categories as KPIs		●
Quality Planner – centralized quality process management; define, assign and monitor quality tasks		●
Quality Planner – Evaluation Quota: # of agent evaluations and quota deviations		●
Quality Planner – Evaluation Properties: # of interactions for evaluation, forms		●
Quality Planner – Notifications: selection of a trigger or multiple triggers		●
KPI Management module – creation and configuration of KPIs		●
KPI Analysis module (in MyUniverse) - monitor and track KPIs		●
Recording agnostic: Quality Management applications available on top of different recording systems of different versions, including non-NICE recording		●
Search & Replay (Business Analyzer)		
Ability to create private and public folders and queries	●	●
Ability to tag interactions with user lags	●	●
Web-based query application	◐	●
Complete call capture and playback	◐	●
Multi-Site query (connecting to multiple databases)	◐	●
Unified query application for all modules (interactions, evaluations, coaching, feedback, investigation, playback workflow)		●
Multi-dimensional query (ability to include criteria from multiple functions such as QM, Analytics, Customer Feedback, call flow, etc in the same query)		●
Events List in Playback Window		●

Functionality	8.9	R4.1
Visualization (color-coding) of the search results (graph view)		●
Query settings – configure different columns, order and number of results for different types of queries		●
Prevent users from searching and playing back interactions – based on specific criteria (Filter on Column)		●
Business data search (including search by Comments, Text annotation, Classification, Scoring)		●
Ability to edit business data fields		●
Ability to add private or public Text Annotations to interactions in the player		●
Voice & Screen archive – ability to report on voice and screen archiving status		●
Query by any of the call participants (initiator, recipient)		●
Push default query settings to users, groups and sites		●
Hide non-authorized / non relevant QM functions from specific users		●
Ability to query on cross-channel interactions, including email and chat		●
Preview of email interactions		●
Preview of chat interactions		●
Evaluations		
Evaluation linked to the call	●	●
Ability to tile the evaluation and playback windows, so that users can evaluate while watching the playback	●	●
Export completed evaluation	●	●
Advanced Precision Monitoring approach (replacing the Random Monitoring)		●
Ability to send Coaching Packages from the Evaluation process		●
Different Evaluation Types – Agent, Customer Experience, and Self Evaluation		●
Ability to “bind” any data field to the form (auto-populated with value)		●
Section Nesting - ability to create subsections		●
Critical, Bonus and Penalty questions types		●
Calibration on Interactions (not on Evaluations)		●
Misc.: Notes spell check, notes print next to question, landscape layout, report label for questions, page breaks etc.		●
Easy navigation in the form using collapse / expand functionality		●
Playback and evaluate any interaction from/to any site (over network/phone)		●
Web-based evaluation forms based on .NET framework		●
Support for dynamic forms – sub-sections activated according to the selected answer (Conditional Questions/Sections)		●
Ability to attach an empty evaluation or calibration form to a coaching package		●
Calibration directly from Evaluation (not from Business Analyzer)		●
Ability to search for evaluations based on section scores, questions or answers		●
Query by ‘self-evaluation’ criteria in the business analyzer		●
Section skill – ability to map a section to a specific skill (enables to report on similar sections located in different forms)		●
My Universe Evaluation component – indication of evaluation target per agent and ability to filter results by evaluation forms		●
Evaluations Form Designer		
Editor for customized forms templates	●	●



Functionality	8.9	R4.1
Wizard-Driven application	●	●
Customizable scoring formulas	●	●
Support for advanced elements in evaluation forms (Multi line box, weighted combo, scoreable list, pop-up notes etc.)	●	●
List editor – customizable lists, scoreable and non scoreable	●	●
Section and Question based scoring as determined by the user	●	●
Browser-based Form Designer Application		●
Designing forms using Master Layout concept (similar to the “Slide Master” in PowerPoint)		●
Scoring view – easy creation of the form scoring schema		●
“MS-Office” Style of Design Tools (Cut & Paste, Font Style, Undo/Redo etc.)		●
Ability to Import/Export Forms in XML format		●
“Coaching Tips” or “Evaluator Hints” can be added to the form without taking up “real estate” on the form		●
Forms design can be performed centrally		●
Support for dynamic forms – sub-sections activated according to the selected answer (Conditional Questions/Sections)		●
Adherence to the COPC standard		●
Ability to define a new type of question: Fatal / non Fatal		●
Flexible scoring mechanism for enhanced COPC support		●
Coaching		
Coaching module is an integral part of the suite		●
Ability to create Coaching Clips Library		●
Ability to create packages that include recorded calls, evaluations, customer feedback and coaching clips, along with external files		●
Ability to turn any portion of a recorded interaction into a clip (including voice annotation)		●
Online distribution of coaching packages via user portal		●
Out-of-the-box Coaching reports		●
Agent signature upon completion of coaching		●
Ability to attach an empty evaluation or calibration form to a coaching package (serves as invitation for an Evaluation/Calibration)		●
Attach links to external CBT or other applications in the coaching package		●
Creation of ‘action-packages’ from a list of predefined action-oriented packages. (e.g. evaluation required, calibration required, coaching)		●
Support a “cc” (as in emails) option – packages can be sent as a copy to users		●
My Universe Coaching component – dedicated area for action packages		●
Packages Status component – ability to follow-up on materials sent (packages reviewed, comments, packages overdue by users)		●

Customer Feedback

Functionality	8.9	R4.1
Associate post-call survey with the recorded interaction	●	●
Relate agent quality scores with customer satisfaction scores	●	●
Easy customization of surveys by the users	●	●
Customer feedback canned reports	●	●
Cross-functional reports (QM scores vs. Survey scores)	●	●

Versions comparison: From NICE 8.9 to NICE Interaction Management R4.1



Ability to assign weight to questions	●	●
Customers can leave a voice comment	●	●
Integral part of the suite (not a standalone solution and doesn't require dedicated server)		●
Web-based application to query and view survey results		●
Support for all main switches and CTI servers		●
Query and view survey results via Business Analyzer		●
Survey results available via the My Universe portal		●
Privileges settings are integral part of the User Admin (same privileges as on the call)		●
Multi-site support for customer feedback (created and manage surveys in a centralized manner)		●
Filter interactions in Business Analyzer by voice comment		●
Call directly to Customer Feedback survey (e.g. enable to collect feedback from customers that use IVR self-service)		●
Support for Aspect IP environment		●
Survey selection using additional parameters: CTI information, Business data, DTMF information		●
Enhanced SNMP alerts (e.g. Interactions Center, Database)		●
Integration with Cisco CUCM 6.1 (SIP)		●
Integration with Cisco ICM 7.1.5 – Call Manager 4.2 (SIP)		●

Compliance, Workflow and Investigation

Functionality	8.9	R4.1
Playback via LAN or extension	●	●
Compliance investigations based on audio analysis		●
Compliance investigation reports		●
Query based on trading floor specific parameters (e.g. left/right handset)		●
Instant playback using “find call” - search and playback calls according to basic call information (e.g. recording channel, time and date)		●
Real-time monitoring by trader		●
Ability to query according to channel ID		●
Ability to run the Compliance Suite in a single box (for small trading floors)		●
Complete interaction view – ability to view interactions that contain multiple segments		●
Speaker call recording – the audio part of each speaker (within the same interaction) is identified as a separate call segment, with its specific metadata. Simplifies query and playback for trading floor speaker calls		●
Mobile call recording via a SIP-based environment		●
Real-time speech analytics for compliance and investigation purposes		●
Playback Organizer (PBO)		
Playback workflow reports (disputes, number of request etc)	●	●
Playback approval workflow	●	●
Email notification	●	●
Configurable approval process		●
Customizable PBO request forms		●
Ability to choose between a sequential or parallel approval process workflow		●
Ability to define auto playback approval of certain calls, based on specific criteria		●

Versions comparison: From NICE 8.9 to NICE Interaction Management R4.1



Ability to request playback on behalf on another user		●
Ability to approve and reject playback requests directly from the email notification		●
Enhanced email notifications – improved look & feel of the info and required actions		●

Interaction Recording

Functionality	8.9	R4.1
TDM – General		
Mixed TDM and IP telephony recording support		●
Alcatel TDM DR-Link integration		●
Voice over IP – General		
Recording blended G.711 and G.729A environments		●
N+1 redundancy for VoIP Loggers		●
Mixed Total and Interaction-based recording channels in the same VoIP Logger		●
Software only N+1 redundancy for VoIP Loggers		●
Recording encrypted VoIP traffic (Cisco Passive and Avaya DMCC environments)		●
Stereo recording in VoIP environment		●
Support for interaction analytics in a VoIP configuration		●
Smart recording channel allocation (gateway-based and phone based)		●
Migration path from Passive to Active VoIP Recording		●
Traditional telephony Loggers are VoIP-enabled		●
Ability to perform VoIP playback to extensions using SIP protocol		●
Integration with optimized Avaya DMCC for Total recording		●
Passive VoIP recording integrations		
Aastra (Ericsson)	◐	●
Aspect	◐	●
Avaya	◐	●
Cisco	●	●
Genesys	◐	●
NEC	●	●
Nortel	●	●
Siemens	◐	●
Active VoIP recording integrations		
Aastra		●
Alcatel		●
Avaya DMCC (f.k.a. CMAPI)	●	●
Cisco Unified Communications Manager		●
Nortel DMSIP		●
VoIP Recording Agent		●
Etrali		●
IP Phones Applications		
IP Phones Applications	●	●
Simplified configuration - all settings are done through the System Administrator		●
Login to NICE's system through the phone		●

Versions comparison: From NICE 8.9 to NICE Interaction Management R4.1

Functionality	8.9	R4.1
IP Phone Applications integrated in the Application Server		●
SIP-based environments		
SIP Trunk recording with Session Border Controller (SBC) from Acme Packets and Covergence		●
SBC mapping plug-in enables to differentiates between SBCs by trunk information in Avaya environments with multiple SBCs		●
Recoding internal calls with Avaya DMCC – any call not mapped to a trunk is recorded by DMCC		●
Screen Recording		
Screen capture is Microsoft GDI (Graphics Device Interface)-intercept based	●	●
Support for capturing agents screens in a Thin client environment	●	●
Minimal impact on agent desktops	●	●
Advanced compression algorithms	●	●
High scalability and recording data rate (6 MB/sec data rate → 250 recording channels per server)		●
NICE media format for audio and screen file archival and retrieval mechanism (NMF)		●
Ability to archive screen recordings		●
Support for NAT/PAT		●
Save Voice & Screen Recording using Microsoft .ASF format		●
Playback multiple screen segments as part of a complete interaction playback		●
Screen recording media encryption		●
Color reduction (ability to pre-define the number of colors)		●
Support for recording in a grayscale mode		●
Selective screen recording (to comply with agent privacy regulations) – positive (list of apps to record) or negative (list of apps not to record)		●
Support additional Thin Client environments: Citrix Presentation Server 4.0 and 4.5 Enterprise; Windows 2003 Terminal Server		●
Channel sharing (ability to attach a Screen Logger to several Interactions Centers)		●
New Screen Recording module, providing greater scalability, centralized management and simplified deployment		●
New ScreenAgent – provides better support for new IT environments, including 32- and 64-bit versions of MS Windows 7 and VDI (Virtual Desktop Infrastructure) environments. Uses SIP protocol		●
Agent Center – new entity, designed for centralized management of client-side applications		●
Text Recording		
Recording textual interactions with customers for compliance and quality management purposes		●
Archiving, querying, viewing and analyzing text interactions		●
Quick integration with new enterprise messaging servers for example Microsoft Exchange, Microsoft OCS IM, etc.		●
Mobile Recording		
Ability to record mobile calls, fully embedded into NICE Interaction Management		●
Integration with certified leading vendors of compliant mobile applications as part of the mobile recording program		●



System Applications

Functionality	8.9	R4.1
User Administration		
Multi-Site central administration and management	●	●
Browser-based user administration application		●
Wizard-driven user administration application		●
Support of group hierarchies (multi-tiered user hierarchy)		●
Privileges assigned and managed via profiles (profile-based access control)		●
Profiles / privileges inheritance via group membership		●
Dynamic profiles (changes to profile automatically updates all users and groups assigned)		●
Set a retention period for deleted users (for improved system performance and usability)		●
Search users according to multiple filters (e.g. agent ID, extension #)		●
Importer - enhanced user attributes import (e.g. job skill, job class, function)		●
Allow alphanumeric agent ID		●
Reset user password – enable reset of user password without granting other user admin rights		●
“Forgot My Password” link in login screen		●
Importer ‘Append’ mode		●
Importer – export to users and groups CSV file format		●
Enable upload of deleted users from CSV/XML files into Users Admin database		●
Drag and drop users from search area into groups		●
Locations – assists in grouping users according to their geographical work place or organizational affiliation		●
Rules Manager		
Unified module for all recording rules (including selective, QM/random, negative recording, business driven etc)		●
Web-based module for storage/archiving rules		●
Ability to define automatic scoring and classification rules		●
Ability to define audio analysis rules		●
Ability to define recording rules based on any business data		●
Recording scheduler – higher recurrence resolution (15 minutes intervals) and monthly recurrence ability		●
Extended filtering capabilities for Negative and Selective recording plans, allowing usage of all expressions (“>”, “<” etc.) that are available in QM recording plans		●
Extended rules definitions for compound calls (e.g. apply selective or negative rules)		●
Ability to define the sampling spread for selective/QM recording rules		●
Enterprise Portal (My Universe)		
Integrated portal as standard functionality		●
Agent-oriented portal		●
Managers/ executives dashboards		●
Customization and personalization capabilities		●
Rich user interface (Smart Client) utilizing .NET		●
Portal presents information from all data sources		●

Versions comparison: From NICE 8.9 to NICE Interaction Management R4.1

Functionality	8.9	R4.1
Role-driven and personalized content view		●
User can define and manage portal views for themselves and others (View Manager)		●
Users can switch between several authorized portal views		●
Evaluation component – indication of evaluation target per agent		●
Evaluation component – ability to filter the results by evaluation forms		●
Coaching component – dedicated area for action packages		●
Ability to customize the login page (e.g. add company messages)		●
Playback		
Sound waves Support (energy waves) on summed audio		●
One summed stream of audio on ASF files to allow use of off-the-shelf editing tools		●
Playback settings in System Administrator		●
Drag and Drop NMF/AUD files into the player		●
NICE Codec Pack installation – allow to load the player from the Application Server (no need to deploy entire player in every upgrade)		●
Microsoft Stream Server Support – allows optimizing playback over WAN		●
Call flow graphical view in player – ability to view three or more interaction segments and the name of the agents that handled each		●
Playback Over WAN with DRM Protection – support of secure media streaming over WAN using Microsoft Digital Rights Management encryption		●
Save call metadata as an index file on local drive		●
Reporting		
Multi-Site enterprise reporting	●	●
Browser-based reporting application	●	●
Multiple of out-of-the-box report templates (quality, evaluator, compliance, Playback Organizer, calibrations, administration etc.)	●	●
Single reporting portal across all solutions/functions in suite	●	●
Cross solutions / functions reports (for example QM vs. Survey, playbacks requests vs. disputes)	●	●
Automatically schedule reports distribution via email	●	●
Reporting engine with drill down capability	●	●
Export reports to standard formats as Excel, Word, HTML, XML	●	●
Option to customize report templates using Crystal reports	●	●
Interactions analytics canned reports		●
Wizard-driven approach to reports design		●
Data Mart architectural approach for multi-site reporting – centralized Data Mart to enable seamless access to information across sites		●
Subscription process to simplify the distribution of reports		●
Report history (“snapshot” files)		●
Report templates can run based on subscribers' privileges (for security purposes)		●
Ability to schedule reports to a folder in the network		●
Browser-based application based on .NET smart client		●
Reporting engine based on Crystal Reports v10		●
Authorization settings are defined & enforced throughout the multi-site organization		●
Compliance Suite canned reports		●



Customer Evaluation canned reports		●
Adherence to the COPC standard – COPC related reports		●

System Architecture

Functionality	8.9	R4.1
Platform		
Scalable architecture for 100% voice and screen recording	●	●
Scalable architecture for business driven (“selective”) voice and screen recording	●	●
High-Density capture platform (480 channels per server)	●	●
Central administration and management (databases, capture units etc.)	●	●
Enterprise (centralized) reporting	●	●
Enterprise (centralized) storage	●	●
Tiered architecture (ability to install an all-in-one server or fully distributed configuration)	◐	●
Unified system administration application for multi-site (manage all security settings across servers, channels, databases, etc.)	◐	●
Application suite is fully web-based	◐	●
Utilizing .NET Smart Clients		●
Centralized playback over the phone architecture (playback server)		●
Unified user interface for all the different solutions in suite		●
Unified solution (Recording, QM, Coaching, Analytics, Survey)		●
Enterprise view (query & playback) – ability to query across a multi-site organization		●
NICE Perform eXpress integration		●
Real-time VOX – ability to extract basic call metadata in real time as soon as a call is taking place		●
System usability, maintenance and administration (‘serviceability tools’)		
Setup Readiness – automatic verification of installation prerequisites and network connectivity requirements		●
Site Summary – complete overview of the installed system, by servers and by components		●
CTI Wizard – configuration of a CTI integration using a consistent, user-friendly flow		●
Online channel configuration (no restart needed)		●
Health check reports – monitoring proper functioning of system components		●
Log Collector – assists in gathering log files and configuration information from servers and client workstations		●
Locations – assists in grouping users according to their geographical work place or organizational affiliation		●
Database server plug-in – presents the used and available space for each database		●
License keys upload in a single operation		●
Voice & screen archive status, displayed in the Business Analyzer		●
Licenses status information (in the administration Summary page)		●
Log viewer – collects logs from all NICE Perform components (for system troubleshooting)		●
Embedded Health Check Reports of NICE Sentinel (customers with earlier releases must use the Reports component to view reports)		●

Versions comparison: From NICE 8.9 to NICE Interaction Management R4.1



Functionality	8.9	R4.1
Support for NICE Interaction Analytics alarms and traps		●
Monitoring and Alarms support for the new capabilities: Real-Time Process Optimization, Agent Center, Multi Data Center, 64-Bit Loggers		●
New central software deployment application, simplifies and shortens deployment maintenance processes		●
Upgrading		
A pre-upgrade tool verifies that the existing database is ready for upgrade, and provides time estimation for the migration duration		●
Delta Migration ability for all direct upgrade paths, including option for simple rollback to previous system		●
Post upgrade validations to ensure that data migrated properly		●
Automated software upgrade process to avoid manual errors		●
Ability to configure the device information from a single location, which is later shared between the User Administrator and Channel Mapping		●
Import/Export from/to file for all supported channel mapping recording methods		●
Semi-automatic import from the telephony switch (Cisco, IPC) allowing automatic synchronization with changes done on the telephony side		●
Channel Mapping wizard to guide users to perform mapping based on system configuration and allowed mapping types		●
Virtualization (server-side)		
Support for virtualization of NICE Perform components: Interactions Center, Database Server, Passive VoIP Loggers, Screen Logger, Application Server, Data Mart		●
Server consolidation – support of VMWare ESX		●
Support for virtualization of certain Active VoIP capture units		●
Support for virtualization of Interaction Analytics Phonetics server		●
Support for virtualization of Desktop Analytics server		●
Support for virtualization of capturing units in Alcatel IP DR-link environments (NICE approval required)		●
Support for virtualization of capturing units in Avaya DMCC interaction-based environments (NICE approval required)		●
Support for VMware VMotion (high availability for virtual machines)		●
Support for Microsoft Hyper-V		●
NICE Interaction Management is certified “VMware Ready” – VMware’s highest level of endorsement for products created by its elite partners		●
Server consolidation with Citrix XenServer – NICE is certifying R4.1 to work on top of Citrix XenServer		●
Citrix XenApp 6.0 – supported R4.1 components include: ScreenAgent, Application Desktop, NICE Player, ROD App., Sentinel Remote Client		●
Virtualization (client-side)		
Support of VMWare VDI (Virtual Desktop Infrastructure) – allows running the NICE applications and Screen Agents on virtual desktops		●
Support for Desktop Analytics in VDI environments		●
Security		
Secured recording file format (not WAV)	●	●
Resource-based security model (four layers of access control: applications, functions, interactions and interaction data fields)	●	●
Comprehensive, Web-based, Audit Trail	●	●
Certified anti-virus software of leading vendors (e.g. Symantec, McAfee, Trend Micro)	●	●



Functionality	8.9	R4.1
Web-based User Administrator application (separated from the System Administrator)		●
Fine-grained access control, over 60 function-based privileges (e.g. can “this user” perform “this function” on “this object?”)		●
Password management (aging, history, strict format, accounts lockout etc)		●
Multi-tiered architecture – segmented access to the NICE solution components based on security zones		●
Access profiles and privileges on functions and data levels		●
Microsoft .NET security (using .NET Remoting and Smart Clients)		●
Support for Network Address Translation (NAT) and Port Address Translation (PAT)		●
Server hardening policies		●
All servers run as services		●
End-to-end media (voice & screen) encryption using Advanced Encryption Standard (AES) 128 or 256 bit keys		●
Advanced encryption key creation and management		●
Microsoft Active Directory integration for user authentication, central password management and single sign-on		●
User password encryption in other environments (not MS Active Directory)		●
Strong user authentication – industry standard Challenge-Handshake Authorization Protocol (CHAP) and 256-bit Secure Hash Algorithm (SHA) password encryption		●
Support for SQL Server NT Authentication (SQL 2005)		●
Playback complete interaction privilege – enable users to play interactions only if all segments are authorized		●
Screen playback privilege – restrict specific users from playing or saving screen recording		●
Windows NT authentication for database access as default authentication mode		●
Secure communication in accordance with SSL/TLS standards		●
Secure services hosted by IIS using HTTPS		●
Extended support for 64-bit operating systems and SQL Server 2008		●
Enhanced privacy control capabilities to comply with PCI DSS requirements		●
Digital signature for rules running on Desktop Analytics client		●
Secure communication link for data extraction		●
Multi-tenancy support		
User profile definition per tenant		●
Public query authorization - queries restricted to outsourcers’ clients/departments		●
Forms hierarchy – enable management/view according to multiple hierarchy levels		●
Assign forms through User Profiles – restrict group of forms to authorized users		●
Multi-tenancy restrictions on access to data (e.g. recorded interactions, agent evaluations)		●
Multi-tenancy restrictions on access to reports		●
Multi-tenancy restrictions on access to views in the My Universe portal		●
High availability and resiliency		
Hot-Swap N+1 redundant power supply	●	●

Versions comparison: From NICE 8.9 to NICE Interaction Management R4.1



Functionality	8.9	R4.1
Hot Swappable RAID-5	●	●
N+1 redundancy for TDM configurations	●	●
Storage Center resiliency	●	●
CTI integrity checks (referred to as TRS – a.k.a “inserter”)	●	●
N+1 resiliency for VoIP configurations (SWV only)		●
Enhanced branch survivability (Interactions Center can retain extended amount of CTI data during network failures)		●
Database resiliency using cluster		●
Clustering in a unified deployment (TDM Total Recording)		●
Clustering in a unified deployment (Cisco Passive Total Recording)		●
Clustering in a distributed deployment (TDM Total, Cisco Passive Total Recording)		●
Disaster Recovery solution that fully synchronizes the standby system of each data hub with the active data hub		●
1:1 mirrored recording – enables two passive VoIP loggers to work together in a mirrored configuration		●
Clustering of Interactions Center in selective (interaction-based) recording environments		●
Centralized storage		
Certified Enterprise Storage Management (ESM) devices		
EMC Centera	●	●
EMC Celler		●
IBM Tivoli	●	●
NetApp SnapLock		●
Hitachi HCP		●
Any other ESM device which supports CIFS / NFS protocols	●	●
Centralized rule-based archiving	●	●
Multi-Logger and Multi-site support	●	●
Secured recording file format (NICE file format)	●	●
Leveraging existing enterprise storage infrastructure as NAS and SAN	●	●
Integrations with 3 rd party storage management vendors such as EMC, IBM/Tivoli etc.	●	●
Selective archiving and selective retention	●	●
Storage center redundancy	●	●
Support for advanced audio compressions (G.729a – 8Kbps and G.723.1 5.3/6.3 Kbps)	●	●
NICE Storage Center administration is fully web-based		●
NICE Storage Center privileges and security fully integrated into Administration module		●
Screen recordings archiving (archive voice, screen or both)		●
Playback directly from NICE Storage Center		●
Archiving to multiple paths		●
New archiving file format (NICE Media Format – .NMF)		●
NICE Storage Center can co-reside on the Application sever		●
File name format for archived recordings can include any CTI field		●
Centralized storage tasks in master site		●
Support for media encryption		●
Support for cluster-based redundancy (in addition to Storage Center redundancy)		●
Ability to graphically show the storage status of each storage area		●
History reports to display the amount of space used in each storage area over a defined period of time		●



Functionality	8.9	R4.1
Extended retention of specific interactions (litigation hold)		●
Integration with NetApp SnapLock		●
Ability to apply archiving rules per data-hub		●
Ability to retain interaction metadata for extended periods. Retention settings ensure that metadata is retained according to regulations and system needs		●
Enhanced litigation hold capabilities – manual litigation hold, ability of multiple users to ‘lock’ an interaction		●
Litigation hold report		●
Automatic load balancing in environments that contain multiple Storage Center servers		●
Enhanced redundancy schemes, ability to define redundancy between N to M Storage Center servers		●
Quota Management – shared storage area between Storage Center servers		●
Ability to archive to multiple ESM devices from the same Data Hub		●
Remove dependency between Storage Center to master site in a linked data hub configuration		●
Ability to archive interactions directly from the Logger to a preset shared storage area		●
Multi Data Center		
Logger Teaming provides the ability to have an entire system in a central Data Center and to use advanced Active and Passive recording		●
Alignment with resiliency mechanisms of industry leading telephony vendors such as Cisco and Avaya		●
Local and inter-site resiliency for all NICE Interaction Management components		●
N+1 across Data Centers		●
End-to-end disaster recovery. NICE High Availability Manager allows IT to perform a failover of the entire Data Center with a single click		●
64-Bit Environment		
Supports for 64-bit environments in most applications		●
Support for client-side applications of MS Windows 7, including NICE applications, Screen Agent, Reporter Viewer and more		●
Support for server-side applications including Applications Server, Database Server, Interactions Server (for most of the telephony integrations) and more. (Complete list in the Certified Servers Guide and Integration Design Document		●
Support for VoIP Logger in 64-bit environments		●
Support for most versions of MS Windows and SQL Servers in 64-bit environments (certain versions may require NICE approval)		●



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